WIDE
Well Injection Depth Extraction
West Jefferson
North Site
Abandoned Filter Bed Decontamination

The Well Injection Depth Extraction (WIDE) is an in situ soil decontamination process being tested. The process will wash subsurface soils with chemical solution injected through prefabricated vertical wells (PVW) to loosen the radionuclides from the soil. Specialized pump unit will extract the radionuclide solution from the ground through PVW. This solution will be filtered through ion specific filters and tested to remove radionuclide.

Currently the WIDE is testing the process operation readiness of the injection, extraction, and filtration equipment. This testing is to document equipment performance to meet or exceed governing body regulation limits. The field has been tested for seasonal performance. The injection cycle works well in all seasons with the exception of winter when the ground freezes. When the ground freezes the extraction cycle will not operate well. During the freeze and thaw cycle the PVW field has to be resealed due to ground separation around the wells.

Water injection into the ground shows excellent soil saturation with a sufficient retention time for soil washing. Many different water injection parameters have been adjusted and retested to profile the process for the quarter scale test plot. Water extraction setup is nearing final stages to begin operational tests. WIDE extraction modifications addressing radiological, environmental, and engineering concerns near completion. Extraction unit, field control, and injection solution tests still remain to compete the battery of operational readiness tests.

After all these tests, procedures, and readiness review are complete the WIDE could go into full operation.